

REMARKS/ARGUMENTS

Claims 1, 3-14, 17 and 18 are pending herein. Claims 2, 15 and 16 have been cancelled hereby without prejudice or disclaimer. Claims 1 and 14 have been rewritten to clarify that the metal adhesive of the joining layer comprises indium and tin, where tin is present in an amount of no more than 10 wt%. Applicants respectfully submit that support for rewritten claims 1 and 14 can be found, for example, in paragraph [0037] of the substitute specification filed herewith. Claim 17 has been amended to depend from claim 14. In addition, claims 3-9, 11, 12 and 18 have been amended to correct matters of form and for clarification purposes only. Applicants respectfully submit that no new matter has been added.

1. Claim 14 was provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claim 5 of “co-pending” U.S. Patent Application Serial No. 10/846,277. Applicants respectfully traverse this rejection.

U.S. Patent Application Serial No. 10/846,277 corresponds to U.S. Patent No. 6,869,689, which issued on March 22, 2005.

Applicants respectfully submit that none of the claims of the '689 patent positively require the joining layer to include indium and tin, where tin is present in an amount of no more than 10 wt%, as pending claim 14 now recites.

For at least the foregoing reasons, Applicants respectfully request that the above rejection be reconsidered and withdrawn.

2. Claims 14-18 were rejected under §102(b) over JP '330. Applicants respectfully traverse this rejection.

Claim 14 recites a joined body including a joining layer that is provided between a first member, which is a ceramic semiconductor wafer supporting member, and a second member which is at least one of a metal and a metal composite, to join the first and second members. The joining layer comprises indium and tin, where tin is present in an amount of no more than 10 wt%.

In JP '330, a ceramic member is joined to a metal member using a solder that is bonded to a metallized layer provided on the ceramic member. That is, the joining layer in JP '330 includes both the metallized layer provided on the ceramic and the solder material. Along those lines, Applicants respectfully submit that one of ordinary skill in the art would readily recognize that the composition of the joining layer in JP '330 includes the composition of the metallized layer and the composition of the solder material. Applicants respectfully submit, however, that there is no teaching in JP '330 that the joining layer includes both indium and tin, where tin is present in an amount of no more than 10 wt%, as claimed.

For example, Applicants respectfully submit that the joining layer in Example 1 of JP '330 includes a 90% tin metallized layer along with a tin-zinc solder. Applicants respectfully submit that one of ordinary skill in the art would readily understand that the final composition of the resulting joining layer in this Example of JP '330 would have more than 10% tin by virtue of the high quantity of tin contributed from the compositions of both of the components of the joining layer (e.g., the metallized layer and the solder).

Further, Applicants respectfully submit that even in the other examples of JP '330 that include indium in the joining layer, there is no disclosure that tin is included in an amount of no more than 10 wt%, as claimed.

For at least the foregoing reasons, Applicants respectfully submit that claim 14, and all claims depending directly or indirectly therefrom, define patentable subject matter over the applied references. Accordingly, Applicants respectfully request that the above rejection be reconsidered and withdrawn.

3. Claims 1-18 were rejected under §102(a)/103(a) over JP '375. Applicants respectfully traverse this rejection.

The Japanese priority document (JP 2002-213369) from which the present application claims priority was filed on July 23, 2002, which is before the publication date (March 18, 2003) of JP '375.

Applicants respectfully submit that the JP '369 priority application supports pending claims 1, 3-14, 17 and 18. A verified translation of the JP '369 priority application is attached hereto as Appendix A.

For at least the foregoing reasons, Applicants respectfully submit that JP '375 is not prior art with respect to the pending claims. Accordingly, Applicants respectfully request that the above rejection be reconsidered and withdrawn.

4. Claims 12 and 18 were rejected under §103(a) over JP '375 in view of JP '330. Applicants respectfully submit that this rejection is moot for the same reasons explained above in section 3 with respect to JP '375.

5. Claims 14 and 15 were rejected under §103(a) over Adams (U.S. Patent Application Publication No. 2003/0011392). Applicants respectfully traverse this rejection.

Claim 14 now includes the features of claims 15 and 16, and claim 16 was not rejected based on Adams. Accordingly, Applicants respectfully submit that claim 14 defines patentable subject matter over Adams.

For at least the foregoing reasons, Applicants respectfully submit that all claims pending herein define patentable subject matter over the applied references, and respectfully request that the above rejections be reconsidered and withdrawn.

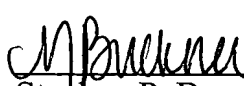
If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

October 6, 2005

Date

Respectfully submitted,



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Attachments: Appendix A - Verified translation of JP 2002-213369

Appendix B - substitute specification

Appendix C - marked-up specification

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